

TABLE 11
COST ESTIMATE FOR ALTERNATIVE 3 (INTERMEDIATE COST AND BENEFIT)

This alternative includes the following tasks:

1. Hydraulic dredging of 318,714 cubic yards of sediment (70%)
2. Mechanical dredging of 136,592 cubic yards of sediment (30%)
3. Excavation of 380,800 cubic yards of bank material from the water, including 285,600 cubic yards of contaminated material
4. Storage and dewatering of sediment in eight 11.2-acre holding basins (gravel base only)
5. Storage and dewatering of contaminated bank material in one 48.6-acre holding basin (gravel base only)
6. Disposal of sediments and contaminated bank material at the BFI Carbon Limestone Landfill
7. Discharge of supernatant water to Mahoning River after passing through oil-water separator
8. Remove five dams
9. Remove 6,693 cubic yards of sediment from between RM 41 and RM 42.9.

Item Description	Quantity	Unit	Unit Price	Amount	Contingencies (25%)	Total
1. Construction features						
1.1 Mobilization	1	JOB	\$200,000	\$200,000	\$50,000	\$250,000
1.2 Site Development	9	JOB	55,000	495,000	123,750	618,750
1.3 Hydraulic Dredg. of Sediment	318,714	CY	11	3,506,000	876,500	4,382,500
1.4 Mech. Dredging of Sediment	136,592	CY	16	2,185,000	546,250	2,731,250
1.5 Clearing and grubbing from the water	115	ACRES	12,000	1,380,000	345,000	1,725,000
1.6 Excavation of Banks from the water	380,800	CY	25	9,520,000	2,380,000	11,900,000
1.7 Construct 9 Holding Basins	870,869	CY	11	9,580,000	2,395,000	11,975,000
1.8 Construct Water Treatment Systems	9	SITES	40,000	360,000	90,000	450,000
1.9 Remove dams	5	SITES	372,900	1,865,000	466,250	2,331,250
2. Landfilling*	1,111,358	TONS	25	27,784,000	6,946,000	34,730,000
3. Lands and damages	1	JOB	2,772,300	2,772,300	693,100	3,465,400
4. Relocations	NONE REQUIRED					
5. Environmental compliance and required mitigation	1	JOB	250,000	250,000	62,500	312,500
6. Engineering and design**	1	JOB	2,909,000	2,909,000	727,250	3,636,250
7. Construction management***	1	JOB	2,473,000	2,473,000	618,250	3,091,250
8. Utility Relocation	7200	FT	1,000	7,200,000	1,800,000	9,000,000
9. Hydraulic/Mechanical Dredging and Disposal of Sediments from RM 41 to RM 42.9	1	JOB		<u>747,000</u>	<u>187,000</u>	<u>934,000</u>
TOTAL				\$73,226,300	\$18,306,850	\$91,533,150

* Assumed 1.5 tons per cubic yard of sediment after dewatering

** Assumed 10% of construction cost

*** Assumed 8.5% of construction cost